

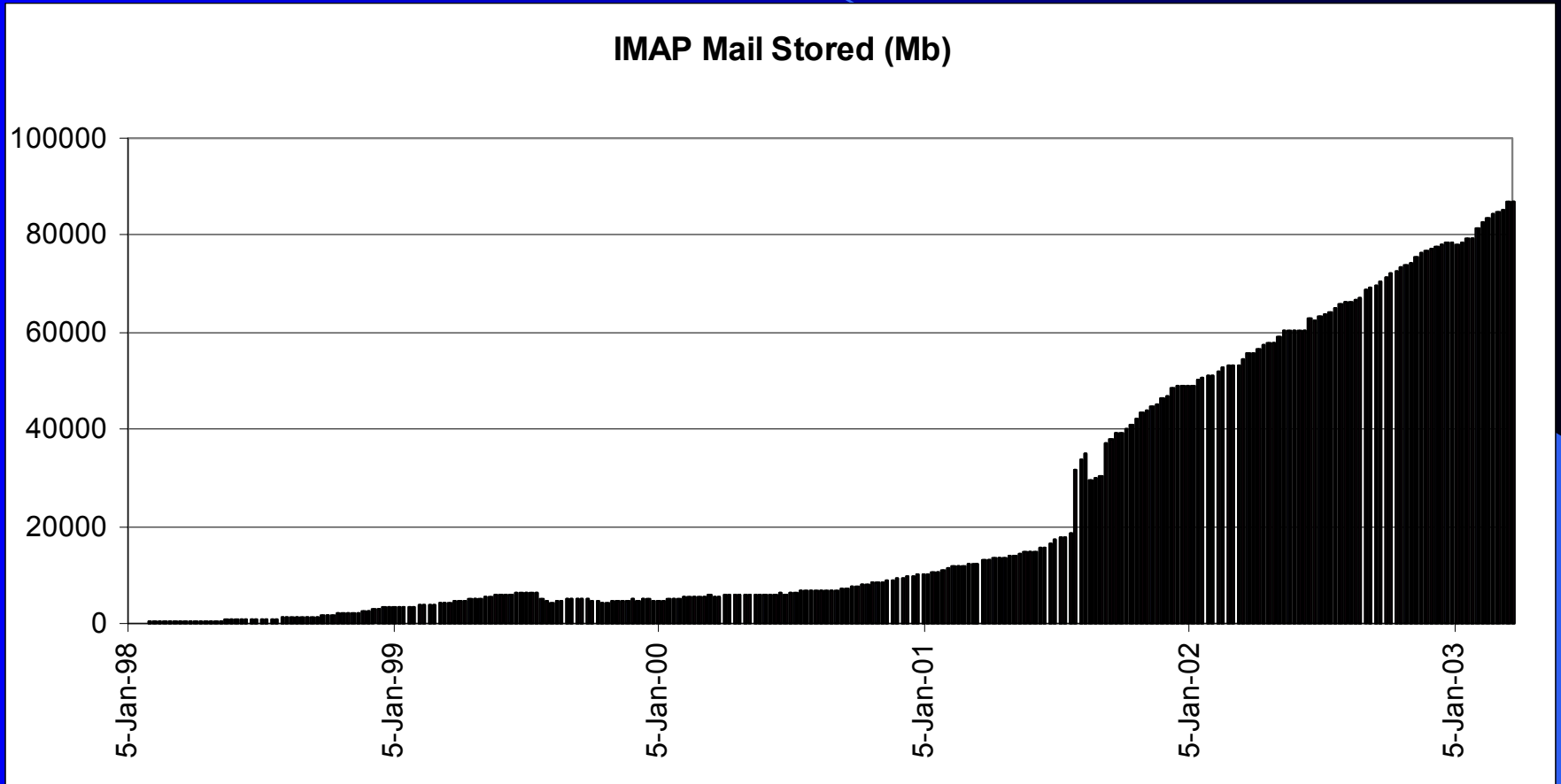
# IMAP Services at Fermilab

- History
- IMAP Today
- Future Plans
- Alternatives
- Recommendations

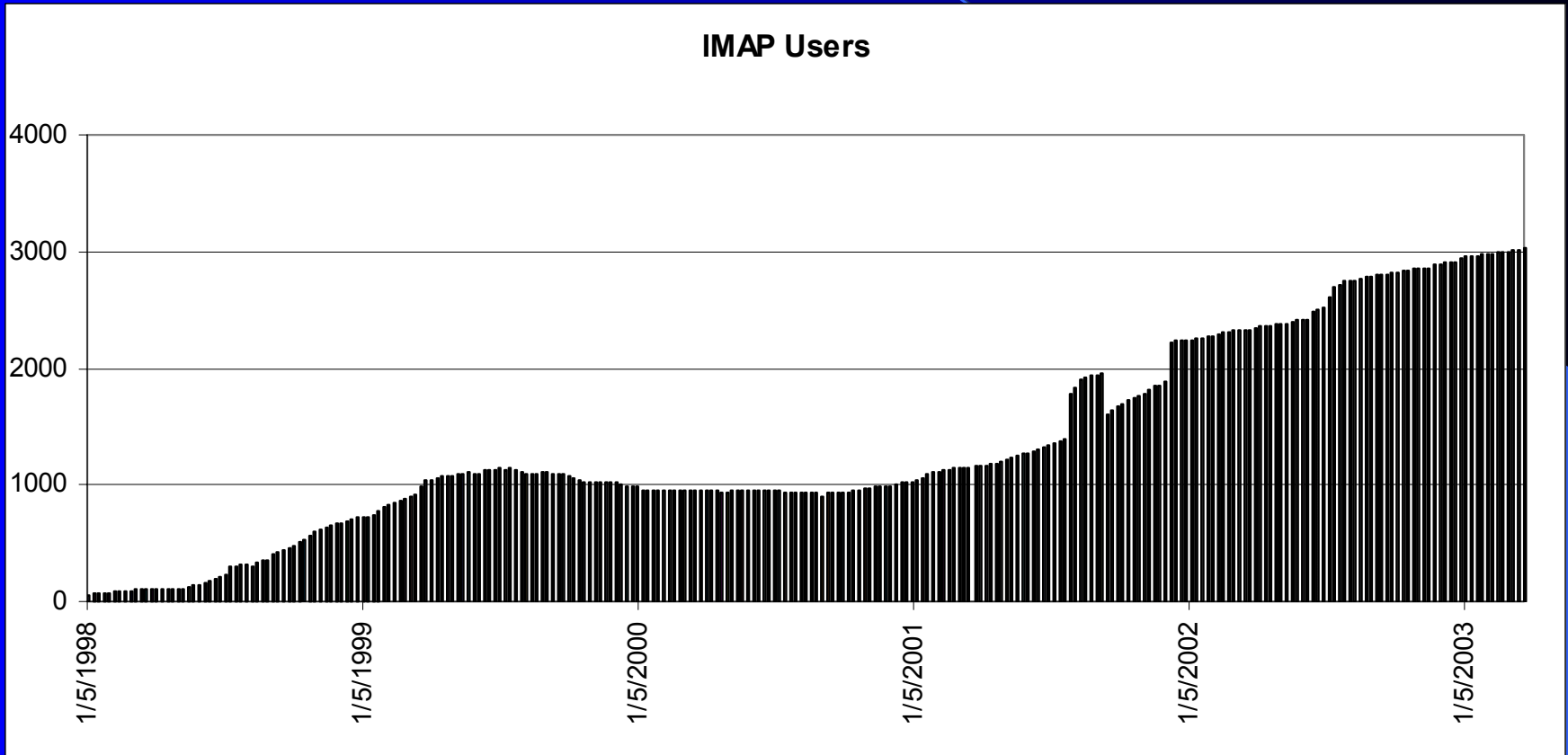
# IMAP History

- NT based services went online in September, 1997
- Jan 1998- 60 users and 168Mb mail
- 1999- Two more systems added
- Jan 2000- 1292 users and 10.6Gb mail
- Summer 2001- Major upgrade
- Jan 2002- 2241 users and 48.8Gb mail
- Current- 3029 users and 86.9Gb mail

# IMAP Usage



# IMAP Usage



# IMAP Today

- 3 Windows NT Servers running Netscape Messaging Server v4.15 with SCSI based RAID 0+1 direct attached storage
  - Current version is 5.2hf10
- IMAP and Webmail only
- SSL supported for webmail and IMAP access

# Quotas

- Today
  - Default quota is 50Mb
  - 87Gb of stored mail
  - 225Gb quota allocation
  - 280Gb of attached disk

# Quotas

Quota	Number of Users	Stored Mail (Gb)
50Mb (Default)	2421	27.2
51Mb to 100Mb.	395	18.9
101Mb to 200Mb	149	13.7
201Mb to 300Mb	41	7
301Mb to 400Mb	16	4
401Mb to 500Mb	10	2.6
501Mb to 1Gb	17	9.1
1Gb	7	5

# Known Problems

- Some client software has mismarked messages
  - Microsoft Outlook Express
  - Netscape Messenger v6 and v7
- Older clients do not properly support IMAPv4
- Server software needs updating
- Helpdesk tickets
  - Majority of tickets are for ‘missing messages’, restoration of deleted mail, or requests for higher quotas

# User Requests

- Input solicited at various meetings
  - Higher default quota
  - Server side filtering
  - Address books for webmail
  - Spell checker for webmail
  - SSL Support

# IMAP Futures

- Sun Servers and Solaris OS
- SAN based storage
- SunONE Messaging Server software
- Multiplexed connector - [imap.fnal.gov](http://imap.fnal.gov)
- Outsourcing?

# IMAP Futures

- Why Sun?
  - Leverage existing knowledge of Sun hardware and software as well as excellent pricing
  - Solaris tier 1 support for software
- Why SAN?
  - Leverage existing infrastructure in CSI
  - Allows for dynamic addition of storage
  - Allows for rapid redeployment of storage for disaster recovery

# IMAP Futures

- Why SunONE Messaging Services?
  - Formerly known as iPlanet Messaging Server. Initial testing of this product on Solaris as a IMAP server has been very promising.
  - This is the software that we run on the FNAL Mail Gateways in MTA mode and on POPGTW
  - Developers are former Innosoft principals.
  - Open source products were evaluated (UW, Cyrus, Courier, etc) but the feature set of SunONE Messaging Server is very complete

# IMAP Futures

- SunONE features
  - Personal Addressbook for webmail users
  - Spell checking for webmail users
  - Sieve filters for server side filtering
- Multiplexed connector – `imap.fnal.gov`
  - All users would connect to `imap.fnal.gov` rather than `imapserverX.fnal.gov`. Allows greater flexibility in capacity management as well as disaster recovery

# Alternatives

- A small number of firms have been contacted with regard to outsourcing our IMAP services - either to an offsite installation or a vendor supplied/supported onsite system.
  - Base prices range from \$4,800.00 to \$17,500.00 per month for our existing utilization. Server(s) would be located at vendors site or a major co-location facility

# Alternatives

- Upgrade existing systems
  - Windows based OS has historically been last in the queue of supported OS's to get new versions of the Messaging Server software. For example - Windows 2000 just recently became a supported OS for the current version of our messaging server software
- Open Source
  - Recommendation from an ISP was to have a knowledgeable FTE for maintenance and modifications of software

# Alternatives

- Exchange

- A number of HEP labs have either moved to Exchange or are looking at migrating
- Integrated with Windows 2000 Active Directory – Kerberos based authentication
  - With SSL this puts an encrypted Kerberos password on the wire when used as a IMAP server.
- Estimate 2 – 3 admins (full time) will be necessary to migrate and manage properly
  - Training for all admins would be required

# Recommendations

- Purchase 3 Sun 280r servers (\$15,000 ea)
  - One to one replacement of existing servers for minimal service interruption
  - Use existing SAN infrastructure for storage
  - SunONE Messaging Server
- No additional expenditure for licenses is necessary as Fermi has sufficient quantity under maintenance